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PHALERA BUCEPHALA, AB.

In the above aberration of *P. bucephala* the general colour is smoky-grey, the double cross lines are black, and the apical patch is ashy-grey clouded with blackish. The head and thorax and the fringes appear to be normal, but the latter are partly rubbed off in the specimen. The hind wings are of the usual colour, but have a dark grey patch, as shown in the figure.

Mr. Esson, of Aberdeen, who kindly sent it for figuring, informs me that the specimen was bred at Forres, and that he saw it alive.

RICHARD SOUTH.

NOTES ON THE HYMENOPTEROUS FAMILY AGATHIDIDÆ.

BY CLAUDE MORLEY, F.E.S., &c.

THIS family forms, with the Microgasteridæ, of which I have already treated (*cf.* Entom. 1906, p. 99), the Areolarious group of the Braconidæ, and is but sparsely represented by four small genera in Britain. It is, however, very widely distributed throughout the tropical regions of Africa and America, and its species appear to be almost or quite exclusively lepidopterous parasites. Our genera are very easily distinguished if the specimens be not carded:—

- (2) 1. Mouth-parts produced in the form of a beak AGATHIS, Latr.
 (1) 2. Mouth-parts normal and not produced.
 (6) 3. Areolet present and distinct.
 (5) 4. First cubital cell coalesced with first discoidal
 MICRODUS, Nees.
 (4) 5. First cubital cell entire EARINUS, Wesm.
 (3) 6. Areolet entirely wanting ORGILUS, Hal.

AGATHIS.

- (2) 1. Abdomen centrally broadly red 1. *malvacearum*, Latr.
 (1) 2. Abdomen entirely black.
 (6) 3. Areolet triangular.
 (5) 4. Mouth-parts longer than head; wings nigrescent
 2. *nigra*, Nees.
 (4) 5. Mouth-parts shorter than head; wings subhyaline
 3. *angelica*, Marsh.
 (3) 6. Areolet quadrangular.
 (8) 7. Palpi red; terebra longer than body 4. *rufipalpis*, Nees.
 (7) 8. Palpi black; terebra as long as body 5. *brevisetis*, Nees.

Agathis malvacearum.—Mr. Donisthorpe has given me this species, which he once found in abundance upon *Malva moschata* at Rye, Sussex, in August.

A. nigra.—Not uncommon. Abinger Hammer, near Guildford, in August, 1900 (E. A. Butler); Devon (Bignell); Greenings, in Surrey, August, 1871 (Wilson Saunders).

A. angelica.—I possess one female from Dr. Capron's collection, probably taken at Shere, in Surrey.

A. brevisetis.—Two females from Abinger Hammer, taken by Butler, and one from Dr. Capron's collection.

MICRODUS.

- (10) 1. Second segment not longitudinally aciculate.
 (9) 2. Hind tibiæ red, with apices black.
 (4) 3. Abdomen laterally rufescent 1. *linguarius*, Nees.
 (3) 4. Abdomen entirely black.
 (6) 5. Hind femora black; size $2\frac{1}{3}$ mm. 2. *nugax*, Reinh.
 (5) 6. Hind femora red; size at least 3 mm.
 (8) 7. Size 6 mm.; tegulæ black 3. *clausthalianus*, Rtz.
 (7) 8. Size $3-4\frac{1}{2}$ mm.; tegulæ testaceous 4. *tumidulus*, Nees.
 (2) 9. Hind tibiæ black and white 5. *cingulipes*, Nees.
 (1) 10. Second segment longitudinally aciculate.
 (14) 11. Third segment entirely smooth.
 (13) 12. Mesonotum rufescent 6. *calculator*, Fab.
 (12) 13. Mesonotum black 7. *brevicaudis*, Reinh.
 (11) 14. Third segment at least partly aciculate.
 (16) 15. Hind coxæ red 8. *rufipes*, Nees.
 (15) 16. Hind coxæ black.
 (18) 17. Hind tibiæ black and white 9. *rugulosus*, Nees.
 (17) 18. Hind tibiæ red, with apices black. 10. *mediator*, Nees.

Microdus linguarius.—Taken commonly by Butler at Abinger Hammer in August, 1900, and once by Mr. A. Piffard at Felden, in Herts.

M. nugax.—Not hitherto noticed in Britain, and only recorded from Erzgebirge and Frankfort-on-Main. I captured a male on flowers of *Spiræa ulmaria* at Foxhall, in Suffolk, August 10th, 1902, and possess a female taken by W. Saunders in July, 1872, at Greenings, in Surrey.

M. clausethalianus.—Females. Barr, in Ayrshire, in the latter half of July, 1900 (Dalglish); Greenings, in July, 1871 (W. Saunders); and swept in a marsh at Barton Mills, in Suffolk, on June 12th, 1900, by myself.

M. tumidulus.—Abundant. Felden, in Herts (Piffard); Box-hill, in September (Beaumont); bred from *Catoptria hypericana* at Worksop, June 20th, 1904 (Miss Alderson); Greenings, in June, 1871 (W. Saunders); Abinger Hammer (Butler); Shere, in Surrey (Capron); swept from heather at Selby, in Yorks, September 19th, 1902 (Ash). I found the males commonly on tables of *Angelica sylvestris* at Foxhall on August 30th, 1899, and females have occurred to me both there and at Claydon Bridge, near Ipswich, in damp situations, up to September 23rd.

M. rufipes.—Females. Bournemouth, in 1901 (Bradley); Abinger Hammer, early in August, 1900 (Butler); and in the New Forest (Miss Chawner).

EARINUS.

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| (2) 1. | Second segment rufescent | 1. <i>zonator</i> , Marsh. |
| (1) 2. | Second segment black. | |
| (4) 3. | Hind tibiæ apically testaceous | 2. <i>nitidulus</i> , Nees. |
| (3) 4. | Hind tibiæ apically black | 3. <i>glorinatorius</i> , Panz. |

Earinus nitidulus.—Common. Taken at Felden by Piffard, and swept by myself in Tuddenham Fen, May 20th, 1904.

E. glorinatorius.—Not uncommon. New Forest (Miss Chawner); Cadney, in Lincolnshire, in 1898 (Thornley); I beat it from birch-bushes on May 11th, 1895, and May 18th, 1903, in the Bentley Woods, near Ipswich; and two males from yew at Hollington, near Hastings, as early as March 21st, 1900.

ORGILUS.

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| (2) 1. | Wings normal; palpi black | 1. <i>obscurator</i> , Nees. |
| (1) 2. | Wings small; palpi red | 2. <i>micropterus</i> , sp. n. |

Orgilus obscurator.—Not very common. Several at Felden, in Herts (Piffard); one female bred, with one *Apanteles* and one female *Pezomachus rufipes*,* which last was very probably hyperparasitic upon one or other of the Braconids, from *Butalis senescens*, Stn., at Swanage, in Dorset, between June 8th and

* Cf. my 'Ichneumons of Britain,' vol. ii. 1907, p. 190.

20th, 1895 (E. R. Bankes); one female bred from a pine-feeding *Tortrix* [probably *Retinia resinella*, of which it is a known parasite—C. M.] at Oxshott, in July, 1901 (Sich); I have swept it in Tuddenham Fen, in Suffolk, and upon the Ringstead Downs, near Hunstanton, in August, 1906, and beaten it from birch in the Bentley Woods, May 29th, 1902.

O. micropterus. — I took the sexes of this new species on *Angelica sylvestris* flowers at Foxhall on September 12th, 1898, and by sweeping at Ringstead, in Norfolk, on August 21st, 1906; the type is in my collection. From *O. obscurator*, which is the only other black species with the second segment quadrate, it differs in the red palpi; distinct hyaline area below the stigma; anterior femora red, with a narrow black streak above; tibiæ red, with the hind ones of male infusate; trochanters mainly, apices of hind and whole of anterior coxæ, red; basal segment thrice (not twice, as in *O. obscurator*) longer than apically broad, with the spiracles very much more prominent; second segment distinctly longer, and, except sometimes at its extreme base, entirely glabrous. The male, in addition, has the flagellum longer and red to beyond its centre. In general facies, *O. micropterus* is distinguished by its distinctly longer legs, with the tarsal joints, especially in male, elongate; the wings do not extend to the anus and are narrower, with the apex and anal angle distinctly less prominent in outline. I find no metathoracic modification such as we are accustomed to associate with the brachypterous forms of usually macropterous Cryptinæ.

Monks Soham House, Suffolk :
May 16th, 1907.

NOTES ON THE GENUS *EUPITHECIA*.

BY LOUIS B. PROUT, F.E.S.

(Continued from p. 211.)

ALTHOUGH Klos does not mention unequivocally that his second-brood larvæ were feeding on *leaves*, I think it may safely be assumed that such was the case; first, because he mentions that his experience is analogous to that already well known with *E. innotata* (see *supra*), and, secondly, because it would probably be hard to find even whitethorn, to say nothing of blackthorn, still in bloom at the beginning of July, especially in a "forward" district like Gratz.

In its times of emergence *E. virgaureata* seems to be rather an erratic species. Moore (Zool. xx. 8208; Weekl. Ent. ii. 92) had most of his moths appear from hibernated pupæ in May–June, but a second batch from the same lot of pupæ did not emerge